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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,148	08/27/2001	Michael Zobel	Mo-6485/LeA33,061	7822
157	7590	11/29/2004	EXAMINER	
BAYER MATERIAL SCIENCE LLC 100 BAYER ROAD PITTSBURGH, PA 15205			ROBERTSON, JEFFREY	
		ART UNIT	PAPER NUMBER	
		1712		

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/890,148

Filing Date: August 27, 2001

Appellant(s): ZOBEL ET AL.

John E. Mrozinski, Jr.  
For Appellant

**EXAMINER'S ANSWER**

MAILED  
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GROUP 1700

This is in response to the appeal brief filed September 14, 2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

No amendment after final was filed. The statement that an amendment was filed and not entered is incorrect. Applicant did not submit an amendment after final, but a request for reconsideration.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

Claims 2, 3, 5, 7-9, 12 and 13 stand or fall together.

**(8) *ClaimsAppealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

4,937,285	WITTMANN et al.	6-1990
5,274,017	PAN	12-1993
5,908,663	WANG et al.	6-1999

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims as set forth in the final rejection mailed April 7, 2004 and herein repeated:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 5, 7-9, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wittmann (4,937,285) in view of Pan (5,274,017) or Wittmann (4,937,285) in view of Pan (5,274,017) taken further with evidence provided by Wang (5,908,663). Wittman teaches a thermoplastic molding composition comprising aromatic polycarbonate, vinyl copolymer and graph copolymer that has good low temperature impact strength and improved fuel resistance. See example 3. The composition may contain flame retardants. See col. 11, line 40. Pan teaches the use of aluminum oxide

having a colloidal particle size (of less than 1 micron as a flame retardant for aromatic polycarbonate. The aluminum oxide is applied as a colloidal sol obtained from Nalco Chemical Co. See col. 1, lines 55-62 and examples. In view of Pan teaching aluminum oxide as a colloidal sol having a particle size of less than 1 micron as a flame retardant for aromatic polycarbonate, it would have been obvious to add a water containing aluminum oxide having a particle diameter of less than 1 micron to the aromatic polycarbonate composition of Wittmann in order to improve flame retardance.

Alternatively, as aqueous colloidal sols of aluminum oxide having a particle size of 20nm are commercially available from Nalco, evidenced by Wang at col. 5, lines 23-27, in view of Pan teaching aluminum oxide as a colloidal sol having a particle size of less than 1 micron obtained from Nalco as a flame retardant for aromatic polycarbonate, it would have been obvious to use the commercially available aqueous colloidal sol of aluminum oxide having a particle size of 20 nm in the aromatic polycarbonate composition of Wittmann in order to improve flame retardance.

**(11) *Response to Argument***

(a) Applicant argues that the examiner relied on the use of hindsight reasoning in combining the references in the final office action. To support this position, applicant argues that Wittmann teaches the use of flame retardants in a "long 'laundry list'" of potential ingredients, where Wittmann provides no teaching, direction, or guidance as to how to select any flame retardant. Applicant alleges that Pan fails to provide the missing teaching to remedy the "deficiencies" of Wittmann.

The examiner disagrees with this position. First, Wittmann teaches that flame retardants may be added to the composition in column 11, line 40, and column 11, lines 57-58. In view of the applications set forth by Wittmann in claim 12, lines 3-11, one of ordinary skill in the art would have been motivated to add a flame retardant to the composition. Specifically, Wittmann teaches molded articles such as domestic appliances including coffee machines and uses in electrical engineering. For these applications, it is clear that molded compositions containing flame retardants would be desirable. In addition, Whitmann teaches percentages that either significantly overlap or encompass the amounts for the aromatic polycarbonate, vinyl copolymer, and graft copolymer in column 9, lines 31-53 and in Example 3 as shown in column 14, Table 1.

Second, that Wittmann provides no direction as to the selection of a particular flame retardant *actually provides* a motivation for one of ordinary skill in the art to turn to the Pan reference for particular flame retardants used in polycarbonate compositions. Thus, contrary to applicant's position, Pan does provide the missing teaching of Wittmann and does remedy the deficiencies of Wittmann.

(b) Applicant next argues that the Examiner has failed to point to where Pan discloses or even suggests the inclusion of a vinyl copolymer as instantly claimed. Applicant also argues that the Examiner has failed to point to where Pan contains any teaching or suggestion to utilize water-containing oxides such as aluminum oxide hydroxide. Applicant argues that the Examiner has failed to point to where Pan teaches or suggests the other aluminum compounds set forth in the Markush group of claim 5.

In response, as detailed in the final rejection, Pan teaches the use of oxides with particle sizes less than about 1 micron in col. 2, lines 39-44. In column 8, lines 5-9, Pan teaches an exemplary oxide that is a colloidal sol of aluminum oxide supported on silica available from Nalco Chemical Co. The fact that this component is in sol form means that the oxide is aqueous, i.e. contains water. In addition, there is no recitation in the instant claims of "aluminum oxide hydroxide". As evidence that these sols are water-containing, the Wang et al. reference is provided solely for the purpose to show that the Nalco aluminized silica sols are aqueous sols.

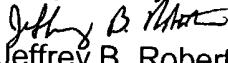
Regarding the amount of aluminum oxide added to the composition, in column 2, lines 45-56, Pan teaches that the amount of the flame retardant added to polycarbonate compositions is between 0.02 to 10% by weight, which either is entirely encompassed by the amount claimed by applicant or significantly overlaps the amount claimed by applicant.

(c) Applicant argues that Wang et al. fails to remedy the deficiencies of Wittmann and Pan and questions whether one of ordinary skill in the art would be motivated to consult a topical carpet treatment reference when making a thermoplastic molding composition. Applicant also argues that the fact that a compound was commercially available is of no consequence to the patentability of a composition including it if there is no teaching or suggestion in the art for its inclusion.

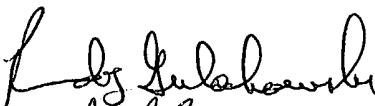
In response, the Wang et al. reference is used solely for the purpose of showing that the Nalco sols taught by Pan are aqueous sols having the particle sizes required by applicant. The motivation to add the Nalco aluminum oxide sols is provided by Pan,

which prefers the use of such sols for flame retardance in polycarbonate molding compositions.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,  
  
Jeffrey B. Robertson  
Primary Examiner  
Art Unit 1712

JBR  
November 23, 2004

Conferees  
Randy Gulakowski   
James Seidleck 

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